

**4/23/2013 11:55 AM**

**DOCKET NO. D-1986-011 CP-3**

**DELAWARE RIVER BASIN COMMISSION**

**Discharge to the Drainage Area of Special Protection Waters**

**Brodhead Creek Regional Authority  
Wastewater Treatment Plant Service Area Expansion  
Borough of Stroudsburg, Monroe County, Pennsylvania**

**PROCEEDINGS**

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by the Brodhead Creek Regional Authority (BCRA) on January 15, 2013 (Application), and amended on April 4, 2013, for review of a wastewater treatment plant (WWTP) service area expansion. The Pennsylvania Department of Environmental Protection (PADEP) issued National Pollutant Discharge Elimination System (NPDES) Permit No. PA0029289 A2 for the project discharge on January 23, 2012.

The Application was reviewed for inclusion/continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact (Compact)*. The Monroe County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on May 7, 2013.

**A. DESCRIPTION**

**1. Purpose.** The purpose of this docket is to approve an expansion of the service area for the existing 4.5 million gallon per day (mgd) BCRA WWTP, formerly known as the Stroudsburg WWTP. There are no modifications to the WWTP proposed - the hydraulic design capacity of the WWTP will remain at 4.5 mgd. This docket also removes the requirements imposed by Condition II.v. of Docket No. D-1986-011 CP-2.

**2. Location.** The project WWTP is located on Kitson Street adjacent to the west of the confluence of McMichael Creek and Brodhead Creek, in the Borough of Stroudsburg, Monroe County, Pennsylvania. The WWTP will continue to discharge to McMichael Creek, which is

tributary to Brodhead Creek, at River Mile 213.0 – 4.0 – 0.2 (Delaware River - Brodhead Creek - McMichael Creek) and is located in the drainage area to the Middle Delaware Special Protection Waters (SPW).

The project outfall is located in Brodhead Creek Watershed as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
002	40° 59' 16"	75° 11' 10"

**3. Area Served.** The docket holder's WWTP currently receives domestic and commercial wastewater flows from the Borough of Stroudsburg as well as portions of Pocono Township, Stroud Township, Paradise Township, and Hamilton Township along the Pennsylvania Route 611 corridor, as included in the plan entitled "WWTP SBR Upgrade and Expansion, Service Area and WWTP Location, Brodhead Creek Regional Authority", dated February 17, 2009, and submitted as part of the application for the previous docket approval (DRBC Docket No. D-1986-011 CP-2).

This docket approves the expansion of the existing service area of the BCRA WWTP to include two (2) additional proposed commercial developments to be located in Tobyhanna Township: 1) a three-phased waterpark, hotel, and convention center project referred to as the Kalahari Resorts project; and 2) a commercial development by Pocono Manor Investors, LP. The expanded service area is depicted on the plan entitled "Sewer Service Area Map for DRBC Submission, Pocono and Hamilton Township Regional Act 537 Special Study Plan Revision" by R.K.R. Hess Associates, Inc., revision dated 3/29/2013.

This "Area Served" description reflects an amendment to the Application that has been made since the Application was publically noticed on January 25, 2013. The original Application included the existing Pocono Manor Village and Pocono Manor Inn, located in Pocono Township, in its proposed service area expansion area, along with the area in Tobyhanna Township described above. BCRA no longer proposes to include the Pocono Manor Village/Inn in its proposed service area expansion, but will serve the above mentioned areas in Tobyhanna Township.

For the purpose of defining the Area Served, Section B (Type of Discharge) and D (Service Area) of the docket holder's Application are incorporated herein by reference, to the extent consistent with all other conditions contained in the DECISION Section of this docket.

**4. Physical features.**

**a. Design criteria.** The existing WWTP utilizes a Sequencing Batch Reactor (SBR) treatment system and has a hydraulic design capacity of 4.5 mgd.

**b. Facilities.** The existing WWTP facilities consist of a pump station with a coarse screen, which directs wastewater influent to a headworks facility containing an aerated grit chamber, two (2) rotating drum screens, and continuous oil and grease removal. After the

headworks facility, wastewater is directed to an aerated equalization tank, followed by four (4) SBRs which provide Carbonaceous BOD (CBOD) and TSS removal, biological nutrient removal for nitrate-nitrogen and phosphorous, and decanting. Chemical addition is used for alkalinity adjustment and phosphorous reduction.

Effluent from the SBRs is decanted and then directed to the post aeration/equalization tank for storage and aeration, and then pumped to three (3) tertiary cloth media filters for TSS and phosphorous removal and polishing. The treated effluent then flows by gravity to the ultraviolet light (UV) disinfection system prior to discharge to the McMichael Creek.

Sludge handling facilities consist of two (2) sludge thickeners, two (2) sludge digesters, and two (2) centrifuges for dewatering.

The docket holder's WWTP discharges to waters classified as SPW and is required to have available emergency power. The existing WWTP has a diesel generator installed capable of providing emergency power. (SPW)

The docket holder's WWTP is not staffed 24 hours per day, and shall have a remote alarm system that continuously monitors plant operations. The existing WWTP has a SCADA system installed that continuously monitors plant operations. (SPW)

The docket holder has prepared and implemented an emergency management plan (EMP) for the existing WWTP in accordance with Commission requirements. (SPW)

The existing WWTP is located adjacent to McMichael and Brodhead Creeks. The existing WWTP facilities are located outside the 100-year flood zone as a result of an existing United States Army Corps of Engineers (USACE) levee that is located between the WWTP and McMichael and Brodhead Creeks. The levee was constructed in 1962 in order to protect the Borough of Stroudsburg (including the WWTP) from elevated flood waters in McMichael and Brodhead Creeks. The flood protection project (levee) is inspected annually by the PADEP Bureau of Waterways Engineering and USACE, which issue a dual certification for the inspection.

Waste sludge will continue to be hauled off-site by a licensed hauler for disposal at a state-approved facility.

c. **Water withdrawals.** The potable water supply in the existing project service area is provided by three (3) groundwater wells and two (2) surface water intakes, owned and operated by the docket holder, as described in detail in DRBC Docket No. D-1991-001 CP-2 which was approved on May 10, 2006. BCRA will also provide the potable water supply to the proposed Kalahari Resorts project and the proposed Pocono Manor Investors project located in Tobyhanna Township from these sources. An application to amend BCRA's Docket No. D-1991-001 CP-2 is required to be filed with the Commission in accordance with Condition II.o. in the DECISION section of this docket. Pocono Manor Investors, PTI, LP filed applications with the Commission to amend the service areas of their water supply approval (Docket No. D-2006-

043-1) and wastewater treatment plant discharge approval ((Docket No. D-2006-026 CP-2) to remove the areas to be served by BCRA as approved in this docket (D-1986-011 CP-3).

d. **NPDES Permit / DRBC Docket.** PADEP issued NPDES Permit No. PA0029289 A2 for the project discharge on January 23, 2012, which includes final effluent limitations for the project discharge to surface waters classified by the PADEP as trout stocking fishery (TSF). The following average monthly effluent limits are based on an annual average flow of 4.5 mgd, and are among those listed in the NPDES permit that meet or are more stringent than the effluent requirements of the DRBC.

**EFFLUENT TABLE A-1: DRBC Parameters Included in NPDES permit**

<b>OUTFALL 002 (McMichael Creek)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
pH (Standard Units)	6 to 9 at all times	As required by NPDES permit
Total Suspended Solids	10 mg/l or 375 lbs/day, whichever is less	As required by NPDES permit
CBOD (5-Day at 20° C)	85% minimum removal*, or not to exceed 10 mg/l or 375 lbs/day, whichever is more stringent	As required by NPDES permit
Ammonia-Nitrogen (5/1 to 10/31)	Not to exceed 1.5 mg/l or 56.3 lbs/day, whichever is more stringent	As required by NPDES permit
Ammonia-Nitrogen (11/1 to 4/30)	Not to exceed 4.5 mg/l or 169 lbs/day, whichever is more stringent	As required by NPDES permit
Fecal Coliform	200 colonies per 100 ml	As required by NPDES permit
Dissolved Oxygen	7.0 mg/l	As required by NPDES permit
Nitrate-Nitrogen (5/1 - 10/31)**	Not to exceed 4.0 mg/l or 150 lbs/day, whichever is more stringent	As required by NPDES permit
Total Phosphorous	Not to exceed 1.0 mg/l or 37.5 lbs/day, whichever is more stringent	As required by NPDES permit
Total Dissolved Solids***	1,000 mg/l	As required by NPDES permit

\* DRBC Requirement

\*\* See Table A-2 below

\*\*\* See Condition II.s.

**EFFLUENT TABLE A-2: DRBC Parameters Not Included in NPDES permit**

<b>OUTFALL 002 (McMichael Creek)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
Total Kjeldahl Nitrogen (TKN)	Monitor & Report	Monthly
Nitrite+Nitrate-Nitrogen*	Monitor & Report	Monthly

\* Effluent limits and monitoring required in Table A-1 for Nitrate-Nitrogen is considered satisfied by the docket holder not exceeding 4.0 mg/l or 150 lbs/day for Nitrite+Nitrate-Nitrogen from May through October - the docket holder is also required to monitor and report for Nitrite+Nitrate-Nitrogen from November through April

e. **Relationship to the Comprehensive Plan.** The existing WWTP was included in the Comprehensive Plan by Docket No. D-1986-011 CP-1 on April 29, 1986. An expansion to the WWTP was approved by Docket No. D-1986-011 CP-2 on October 22, 2009.

## **B. FINDINGS**

The purpose of this docket is to approve the expansion of the service area of the existing BCRA WWTP, formerly known as the Stroudsburg WWTP and to remove the requirements imposed under Condition II.v. of Docket No. D-1986-011 CP-2. No modifications to the existing WWTP treatment facilities are proposed – the hydraulic design capacity of the WWTP will remain at 4.5 mgd. The WWTP will not require an increase to its existing design flow or docketed loadings as a result of this service area expansion

The docket holder's WWTP currently receives domestic and commercial wastewater flows from the Borough of Stroudsburg as well as portions of Pocono Township, Stroud Township, Paradise Township, and Hamilton Township along the Pennsylvania Route 611 corridor, as included in the plan entitled "WWTP SBR Upgrade and Expansion, Service Area and WWTP Location, Brodhead Creek Regional Authority", dated February 17, 2009, and submitted as part of the application for the previous docket approval (DRBC Docket No. D-1986-011 CP-2). The portion of the sanitary sewer system that conveys wastewater from Pocono Township to the BCRA WWTP for treatment is owned and operated by Pocono Township. The portion of the Pocono Township line servicing Hamilton Township is leased by Hamilton Township from Pocono Township, but is operated by Pocono Township under a management agreement.

The Application includes a request to expand the existing service area of the BCRA WWTP to include two (2) additional proposed commercial developments to be located in Tobyhanna Township: 1) a proposed three-phased waterpark, hotel, and convention center project referred to as the Kalahari Resorts project; and 2) a commercial development by Pocono Manor Investors, LP. The expanded service area will connect to the existing Pocono Township sewer conveyance system, which conveys wastewater to the BCRA WWTP, via existing and proposed infrastructure.. The expanded service area is depicted on the plan entitled "Sewer Service Area Map for DRBC Submission, Pocono and Hamilton Township Regional Act 537 Special Study Plan Revision" by R.K.R. Hess Associates, Inc., revision dated 3/29/2013.

In order to convey wastewater generated by the expanded service area in Tobyhanna Township to the BCRA WWTP, the Application indicated: 1) new sewage collection facilities (sewer lines and pump stations) will be constructed by the developers (Kalahari Resorts and Pocono Manor Investors), and will connect to the existing Pocono Township sanitary sewer system for conveyance to the BCRA WWTP; and 2) ownership and operation of these sewage collection facilities will ultimately be transferred over to Tobyhanna Township.

The sewage facilities planning modules for the service area expansion, as described above, were executed by the Township of Tobyhanna on April 11, 2013. Pocono Township executed the sewage facilities planning module on April 10, 2013. The planning modules from

both Townships have been submitted to PADEP for approval. The provisions of each sewage facilities planning module provide for an expansion of the BCRA sewer service area and Pocono Township sewer collection/conveyance service area. The area of expansion is exclusively located in Tobyhanna Township as depicted in both planning modules and the “Sewer Service Area Map for DRBC Submission, Pocono and Hamilton Township Regional Act 537 Special Study Plan Revision”.

This docket (D-1986-011 CP-3) approves the service area expansion, contingent on the docket holder obtaining PADEP approval of the sewage facilities planning modules for the service area expansion (See Condition II.a. in the DECISION section).

The docket holder also requested to remove a planning provision required by Condition II.v. of the previous DRBC docket approval (D-1986-011 CP-2), which was a requirement of the Official Act 537 Plan prior to the Plan being amended, and states the following:

*“v. No flows from Pocono and Hamilton Townships shall be accepted by the docket holder except in conformance with the following:*

*i Any developed lot within the Pocono/Hamilton Township service area may connect to the system for its existing flow.*

*ii. If a developed lot within the Pocono/Hamilton Township service area proposes a change in flow of more than 800 gpd, either by conversion of an existing use or redevelopment, sewage planning on an individual basis is required. This shall include an alternatives analysis for potential and possible land disposal opportunities.*

*iii. Any undeveloped lot within the Pocono/Hamilton Township service area may connect to the system if its proposed flow is 800 gpd or less.*

*iv. If an undeveloped lot within the Pocono/Hamilton Township service area proposes a flow of more than 800 gpd, individual sewage planning will be required including an evaluation of the potential to accommodate all or a portion of the lot’s wastewater needs through onsite disposal.”*

R.K.R. Hess Associates, Inc., the consulting engineer for Pocono and Hamilton Townships, submitted the Pocono and Hamilton Townships Regional Act 537 Special Study Plan Revision (Special Study Plan Revision) to Pocono and Hamilton Townships in December, 2012, which provides an update to the Official Act 537 Plan to remove this planning provision, as described above. The application for amendment to the Special Study Plan Revision was approved by PADEP on April 5, 2013. Accordingly, Condition II.v. of the previous DRBC docket (D-1986-011 CP-2) is not included as a requirement of this docket approval (D-1986-011 CP-3).

In 1992, the DRBC adopted SPW requirements, as part of the DRBC *Water Quality Regulations (WQR)*, designed to protect existing high water quality in applicable areas of the Delaware River Basin. One hundred twenty miles of the Delaware River from Hancock, New York downstream to the Delaware Water Gap has been classified by the DRBC as SPW. This stretch includes the sections of the river federally designated as "Wild and Scenic" in 1978 -- the Upper Delaware Scenic and Recreational River and the Delaware Water Gap National Recreation Area -- as well as an eight-mile reach between Milrift and Milford, Pennsylvania which is not federally designated. The SPW regulations apply to this 120-mile stretch of the river and its drainage area. (Upper/Middle SPW)

On July 16, 2008, the DRBC approved amendments to its *WQR* that provide increased protection for waters that the Commission classifies as SPW. The portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area was approved for SPW designation and clarity on definitions and terms were updated for the entire program. (Upper/Middle SPW)

Article 3.10.3A.2.e.1). and 2). of the Commission's *WQR* states that projects subject to review under Section 3.8 of the Compact that are located in the drainage area of SPW must submit for approval a Non-Point Source Pollution Control Plan (NPSPCP) that controls the new or increased non-point source loads generated within the portion of the docket holder's service area which is also located within the drainage area of SPW. The service area of the docket holder is located in the drainage area to the SPW. Since this project does entail additional construction and expansion of service area (i.e., there are new or increased non-point source loads associated with this approval), the NPSPCP requirement is applicable at this time.

The stormwater management ordinance requirements contained in the Brodhead-McMichael Creek Watershed Act 167 Plan (Act 167 Plan), approved by the PADEP on March 10, 2006, satisfy the NPSPCP of the Commission. Stroudsburg Borough, Stroud Township, Hamilton Township, Paradise Township, and Pocono Township (the municipalities served by the existing Stroudsburg WWTP) have adopted and implemented a stormwater ordinance in accordance with the Act 167 Plan. Tobyhanna Township, the municipality wherein the proposed expanded service area is located, has adopted a stormwater ordinances in accordance with the Act 167 Plan. Accordingly, DECISION Condition II.n. has been included in this docket.

At the project discharge location, McMichael Creek has an estimated seven-day low flow with a recurrence interval of ten years of 6.5 mgd (10.1 cfs). The ratio of this low flow to the design wastewater discharge (4.5 mgd or 7.0 cfs) from the WWTP is 1.4:1.

The nearest surface water intake of record for public water supply downstream of the project discharge is the City of Easton intake, located on the Delaware River approximately 31 miles downstream of the project discharge.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

The limits in the NPDES Permit are in compliance with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge meeting the effluent requirements as set forth in the Commission's WQR.

### C. DECISION

I. Effective on the approval date for Docket No. D-1986-011 CP-3 below:

a. The project described in Docket No. D-1986-011 CP-2 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1986-011 CP-3; and

b. Docket No. D-1986-011 CP-2 is terminated and replaced by Docket No. D-1986-011 CP-3.

c. The project and the appurtenant facilities described in the Section A "Physical Features" of this docket shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in the Section A "Physical features" of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP in its NPDES Permit No. PA0029289 A2, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission's. Commission approval of the amendments to this docket is contingent on the PADEP's approval of the sewage facilities planning modules for the service area to be expanded.

b. The facility and operational records shall be available at all times for inspection by the DRBC.

c. The facility shall be operated at all times to comply with the requirements of the Commission's WQR.

d. The docket holder shall comply with the requirements contained in Effluent Tables in Section A.4.d. of this docket. The docket holder shall submit the required monitoring results directly to the DRBC Project Review Section. The monitoring results shall be submitted annually, absent any observed limit violations, by March 31. If a DRBC effluent limit is violated, the docket holder shall submit the result(s) to the DRBC within 30 days of the violation(s) and provide a written explanation that states the action(s) the docket holder has taken to correct the violation(s) and protect against any future violations.

e. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment



requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *Rules of Practice and Procedure*.

f. If at any time the receiving treatment plant proves unable to produce an effluent that is consistent with the requirements of this docket approval, no further connections shall be permitted until the deficiency is remedied.

g. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

h. The discharge of wastewater shall not increase the ambient temperatures of the receiving waters by more than 5°F, nor shall such discharge result in stream temperatures exceeding 87°F.

i. The docket holder is permitted to treat and discharge wastewaters as set forth in the Area Served Section of this docket, which incorporates by reference Sections B (Type of Discharge) and D (Service Area) of the docket holder's Application to the extent consistent with all other conditions of this DECISION Section.

j. The docket holder shall make wastewater discharge in such a manner as to avoid injury or damage to fish, wildlife, and/or other aquatic life and shall avoid any injury to public or private property.

k. No sewer service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

l. Nothing in this docket approval shall be construed as limiting the authority of DRBC to adopt and apply charges or other fees to this discharge or project.

m. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.

n. The docket holder's NPSPCP meets the general requirements of Article 3.10.3.A.2.e.1) of the Commission's *WQR* for the the expanded service area (Tobyhanna Township). Prior to allowing connections from any new service areas or any new developments, the docket holder shall either submit and have approved by the Executive Director of the DRBC a NPSPCP in accordance with Section 3.10.3.A.2.e, or receive written confirmation from the Executive Director of the DRBC that the new service area is in compliance with a DRBC approved NPSPCP.

o. Commission approval to include the Kalahari Resorts and Pocono Manor Investors properties in Tobyhanna Township into the sewer service area of BCRA is conditioned upon:

i. BCRA providing the water supply to those properties from its three (3) existing groundwater wells and two (2) existing surface water intakes.

ii. BCRA submission of an application to the Commission by May 31, 2013 to amend its existing water allocation approval (Docket No. D-1991-001 CP-2) to incorporate these two properties into its service area.

iii. Commission approval of the BCRA's amended water allocation application.

p. Unless an extension is requested and approved by the Commission in advance, in accordance with paragraph 11 of the Commission's Project Review Fee schedule (Resolution No. 2009-2), the docket holder is responsible for timely submittal of a docket renewal application on the appropriate DRBC application form at least 12 months in advance of the docket expiration date set forth below. The docket holder will be subject to late charges in the event of untimely submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below (or the later date established by an extension that has been timely requested and approved), the terms and conditions of the current docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

q. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

r. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the Rules of Practice and Procedure. In accordance with Section 15.1(p) of the Delaware River Basin Compact, cases and controversies arising under the Compact are reviewable in the United States district courts.

s. The docket holder may request of the Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow the substitution of specific conductance for TDS monitoring.

t. The docket holder is prohibited from treating/pre-treating any hydraulic fracturing wastewater from sources in or out of the Basin at this time. Should the docket holder wish to treat/pre-treat hydraulic fracturing wastewater in the future, the docket holder will need to first apply to the Commission to renew this docket and be issued a revised docket allowing such treatment and an expanded service area. Failure to obtain this approval prior to treatment/pre-treatment will result in action by the Commission.

**BY THE COMMISSION**

**DATE APPROVED:**

**EXPIRATION DATE: January 31, 2015**